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IDAHO DEPARTMENT OF FISH & GAME

Joseph C. Greenley, Director

Job Performance Report



RIVER AND STREAM INVESTIGATIONS

Selway River Fisheries Investigations

Period Covered: 1 March 1977 to 28 February, 1978

by

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July, 1978

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July, 1978

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JOB PERFORMANCE REPORT

Name: RIVER AND STREAM Title: Selway River Fisheries
INVESTIGATIONS Investigations

Period Covered: 1 March 1977 to 28 February 1978

From 2 - 9 August 1977, fisheries personnel snorkeled 27 transects in the Selway River from White Cap Creek to Race Creek (unroaded). We counted 415 cutthroat trout (15.4 per transect) and 1,285 whitefish (47.6 per transect). Counts for juvenile steelhead and chinook are covered in a separate report. Comparatively, we counted 4.4 cutthroat per transect in this section in 1973, 5.5 in 1974, 5.8 in 1975 and 6.9 in 1976. Even with allowances for extremely low flows in 1977, the cutthroat population in the Selway River is apparently increasing significantly.

We measured a total of 229 cutthroat from the Selway River between White Cap Creek and Race Creek in 1977. They ranged from 120-422 mm (4.7 - 16.6 in) and averaged 241 mm (9.5 in). The percent of cutthroat over 305 mm (12 in) was 19.2% in 1977 compared to 21.8% in 1976 and 12.0% in 1975. The percent of cutthroat less than 203 mm (8 in) was 29.3% in 1977 compared to 18.5% in 1976 and 39.9% in 1975.

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RECOMMENDATIONS

The catch-and-release regulations have resulted in an increase in cutthroat abundance and size and should be continued.

Evaluation of the changes in the structure of the cutthroat population in response to the catch-and-release regulations should be continued.

OBJECTIVES

To monitor cutthroat trout distribution and abundance in the Selway River and selected tributaries,

To collect life history data on cutthroat trout populations inhabiting Selway River tributaries.

To ascertain if there is a seasonal movement of cutthroat trout between headwater areas of small tributary streams and the Selway River.

TECHNIQUES USED

Between 2 - 9 August 1977, fisheries personnel snorkeled a total of 27 transects in the unroaded portion of the Selway River from White Cap Creek to Race Creek (Fig. 1). On 1 September, I snorkeled three transects in the upper roaded section of the Selway from Deep Creek to White Cap Creek; on 2 September, five transects in the unroaded section from Deep Creek to Wilkerson Creek; and on 9 September four transects in the lower roaded section from Race Creek to the mouth of the Selway. We also snorkeled two transects in Bear Creek on 4 August. We enumerated juvenile steelhead, resident rainbow (over 200 mm), cutthroat, juvenile and adult chinook, Dolly Varden and whitefish in the transects. This report covers only information pertaining to cutthroat and whitefish in the Selway River. Pettit (1978) reported on Selway River steelhead and chinook findings. We categorized the cutthroat into size classes less than or greater than 305 mm (12 in).

To obtain a length frequency of cutthroat trout for comparison with length frequencies of previous years, we caught, measured and released 229 cutthroat from the Selway River during 1977. We also recorded hours fished each day and number of each species caught.

FINDINGS

Cutthroat Trout

On 2 September 1977 we counted 56 cutthroat trout in five transects in the Selway River from Wilkerson Creek to Deep Creek (unroaded). This is more than twice as many as the 27 cutthroat counted in the same five transects on 18 August 1976 (Table 1). There was a decrease in percent of cutthroat over 305 mm (12 in) from 14.8% in 1976 to 3.6% in 1977 (Table 2). This was due mainly to an increase in smaller cutthroat rather than an actual decrease in numbers of large cutthroat. Mid-day water temperatures in this section of the Selway were 10 C (50 F) in 1977 and 12 C (53 F) in 1976.

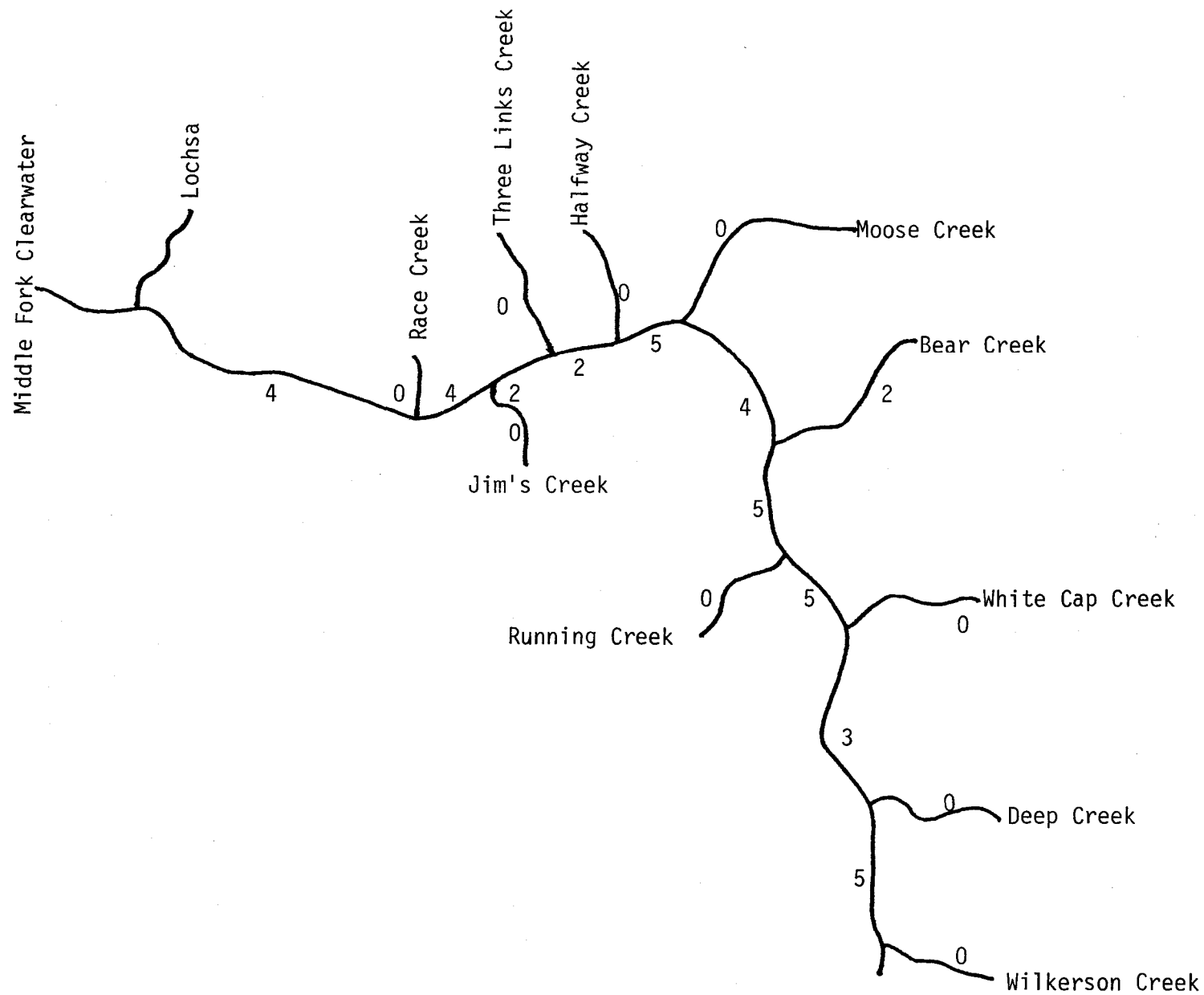


Figure 1. Distribution of snorkel transects in the Selway River and selected tributaries, 1977.

Numbers of cutthroat counted in the upper roaded section of the Selway from Deep Creek to White Cap Creek have remained fairly constant at 3.0 to 4.0 cutthroat per transect since 1974 (Table 1). We had seen no cutthroat over 305 mm (12 in) in this section until 1977 when two of the 10 fish counted were estimated to be over 305 mm (Table 2).

The unroaded portion of the Selway from White Cap Creek to Race Creek had increased numbers of cutthroat in all sections during 1977, Percent of cutthroat over 305 mm (12 in) decreased slightly in some sections during 1977 but still remained higher than in 1973.

From White Cap Creek to Running Creek, the average number of cutthroat per transect increased from 7.2 in 1976 to 10.6 in 1977. The 1977 count was nearly twice that of the previous 4-year average, In 1973, prior to restrictive regulations on cutthroat, we counted 4.2 cutthroat per transect in this section (Table 1). The percent of cutthroat over 305 mm (12 in) has increased from 9.5 in 1973 to 22.6 in 1977 (Table 2).

From Running Creek to Bear Creek, cutthroat increased from 6.2 in 1976 to 18.6 in 1977. The 1977 count was three times the previous 4-year average. We counted 7.2 cutthroat per transect in this section in 1973 (Table 1). The percent of cutthroat over 305 mm (12 in) increased from 11.1 in 1973 to 21.5 in 1977 (Table 2).

From Bear Creek to Moose Creek, cutthroat increased from 6.0 per transect in 1976 to 17.4 in 1977. The 1977 count was 2.9 times the previous 4-year average. We counted 5.3 cutthroat per transect in this section in 1973 (Table 1). The percent of cutthroat over 305 mm (12 in) decreased from 34.4 in 1973 to 21.4 in 1977 (Table 2).

Combining those sections of the Selway River from White Cap Creek to Moose Creek, we found that the number of cutthroat per transect had increased from 5.6 in 1973 to 15.4 in 1977. The 1977 count was 2.6 times the previous 4-year average (Table 1). The percent of cutthroat over 305 mm (12 in) has increased from 12.7 in 1974 to 21.8 in 1977 (Table 2).

From Moose Creek to Halfway Creek, cutthroat increased from 6.0 per transect in 1973 to 24.0 in 1977. The 1977 count was 3.4 times the previous 4-year average (Table 1). The percent of cutthroat over 305 mm (12 in) has increased from none in 1974 to 12.5% in 1977.

From Halfway Creek to Three Links Creek, cutthroat increased from 3.0 per transect in 1973 to 20.0 in 1977. The 1977 count was three times the previous 4-year average (Table 1). The percent of cutthroat over 305 mm (12 in) has increased only slightly in this section from 16.2 in 1974 to 17.5 in 1977 (Table 2),

From Three Links Creek to Jim's Creek cutthroat increased from 4.3 per transect in 1974 to 11.0 in 1977, The 1977 count was 1.8 times the previous 4-year average. The percent of cutthroat over 305 mm has increased from 5.8 in 1974 to 27.5 in 1977 (Table 2),

Table 1. Total numbers counted and average number of fish per transect for cutthroat trout in the Selway River, 1973-1977.

Stream section	Total cutthroat counted					Average number of cutthroat per transect				
	1973	1974	1975	1976	1977	1973	1974	1975	1976	1977
Wilkerson Creek To Deep Creek	-1	-	-	27	56	-	-	-	5.4	11.2
Deep Creek to White Cap Creek	1	9	10	8	10	1.0	3.0	3.3	4.0	3.3
White Cap Creek to Running Creek	21	24	34	36	53	4.2	3.4	6.8	7.2	10.6
Running Creek to Bear Creek	36	24	33	37	93	7.2	4.8	6.6	6.2	18.6
Bear Creek to Moose Creek	<u>32</u>	<u>45</u>	<u>25</u>	<u>24</u>	<u>70</u>	<u>5.3</u>	<u>7.5</u>	<u>5.0</u>	<u>6.0</u>	<u>17.4</u>
Subtotals weighted means	89	93	92	97	216	5.6	5.2	6.1	6.5	15.4
Moose Creek to Halfway Creek	24	36	28	40	96	6.0	9.0	5.6	8.0	24.0
Halfway Creek to Three Links Creek	21	37	21	19	40	3.0	7.4	7.0	9.5	20.0
Three Links Creek to Jim's Creek	30	17	16	13	33	5.0	4.3	8.0	6.5	11.0
Jim's Creek to Race Creek	<u>0</u>	<u>10</u>	<u>4</u>	<u>17</u>	<u>30</u>	<u>=</u>	<u>2.5</u>	<u>1.3</u>	<u>5.7</u>	<u>7.5</u>
Subtotals weighted means	75	100	69	89	199	3.6	5.9	5.3	7.4	15.3
Race Creek to mouth of Selway	1	8	3	4	2	.05	0.4	0.2	0.8	0.5

Table 2. Percent of cutthroat over 305 mm (12 in) in each section of the Selway River, 1973-1977.

Stream section	Percent over 305 mm (12 in)				
	1973	1974	1975	1976	1977
Wilkerson Creek to Deep Creek	-	-	-	14.8	3.6
Deep Creek to White Cap Creek	0.0	0.0	0.0	0.0	20.0
White Cap Creek to Running Creek	9.5	16.7	11.8	22.2	22.6
Running Creek to Bear Creek	11.1	8.3	18.2	16.2	21.5
Bear Creek to Moose Creek	<u>34.4</u>	<u>15.5</u>	<u>8.0</u>	<u>25.0</u>	<u>21.4</u>
Overall percent	18.9	12.7	13.0	20.6	21.8
Moose Creek to Halfway Creek	8.3	0.0	3.6	17.5	12.5
Halfway Creek to Three Links Creek	19.0	16.2	19.0	26.3	17.5
Three Links Creek to Jim's Creek	23.3	5.8	12.5	38.5	27.5
Jim's Creek to Race Creek	-	<u>10.0</u>	<u>50.0</u>	<u>11.8</u>	<u>26.5</u>
Overall percent	17.3	8.0	13.0	21.3	18.1
Race Creek to mouth of Selway	0.0	0.0	0.0	0.0	0.0

Table 3. Cutthroat tag recoveries from the Selway River and Moose Creek, 1975-1978.

Date tagged	Tagging location	Date recaptured	Recapture location	Tag number	Movement
22 June 75	0.8 km (0.5 mi) below Moose Creek	20 July 75	275 m (300 yd) above Moose Creek	A28020	1.2 km (0.75 mi) upstream
22 June 75	1.6 km (1.0 mi) below Moose Creek	29 June 75	0.8 km (0.5 mi) below Moose Creek	A28007	0.8 km (0.5 mi) upstream
28 June 75	1.2 km (0.75 mi) below Moose Creek	25 July 75	1.6 km (1.0 mi) below Bear Creek	A28397	16.1 km (10 mi) upstream
28 July 75	0.8 km (0.5 mi) below Bad Luck Creek	1 July 77	2.4 km (1.5 mi) below Bad Luck Creek	A28688	1.6 km (1.0 mi) downstream
5 July 75	Selway-Moose Creek confluence	13 July 75	Selway River at Divide Creek	A28323	0.8 km (0.5 mi) downstream
5 July 75	Selway-Moose Creek confluence	15 July 76	Selway River at Tango Creek	A28322	10 km (6.2 mi) downstream
6 July 75	Selway River at Divide Creek	31 July 75	North Fork Moose Creek below Shasta Creek	A28302	11.3 km (7 mi) upstream
19 July 75	Selway-Moose Creek confluence	10 Aug 75 and 28 Aug 76	Selway-Moose Creek confluence and then 0.4 km (0.25 mi) up Moose Creek	A28089	None and then 0.4 km (0.25 mi) upstream
19 July 75	4.0 km (2.5 mi) below Moose Creek	20 July 75	4.0 km (2.5 mi) below Moose Creek (released)	A28379	None
19 July 75	Mouth of Moose Creek	18 July	0.4 km (0.25 mi) below Moose Creek	A28075	0.4 km (0.25 mi) downstream
19 July 75	Mouth of Moose Creek	28 May 78	0.8 km (0.5 mi) up Moose Creek	A28095	0.8 km (0.5 mi) upstream

Table 3. (Continued) Cutthroat tag recoveries from the Selway River and Moose Creek, 1975-1978.

	Date tagged	Tagging location	Date recaptured	Recapture location	Tag number	Movement
	20 July 75	Selway-Moose Creek confluence	2 Aug 75	Selway-Moose Creek confluence (released)	A28330	None
	20 July 75	Mouth of Moose Creek	27 Aug 76	Mouth of Moose Creek	A28344	None
	21 July 75	0.8 km (0.5 mi) above Moose Creek	17 Aug 75	0.4 km (0.25 mi) above Moose Creek	A28340	0.4 km (0.25 mi) downstream
	28 July 75	2.4 km (1.5 mi) below White Cap Creek	10 Sept 75	0.8 km (0.5 mi) below White Cap Creek	A28503	1.6 km (1.0 mi) upstream
∞	28 July 75	0.8 km (0.5 mi) below Bad Luck Creek	23 Aug 75	Selway River at mouth of Bad Luck Creek	A28799	0.8 km (0.5 mi) upstream
	29 July 75	Selway River at Bear Creek	21 Aug 76	1.6 km (1.0 mi) below White Cap Creek	A28676	25.7 km (16 mi) upstream
	2 Aug 75	0.4 km (0.25 mi) below N. Fk. Moose Creek	10 Aug 75	0.8 km (0.5 mi) below N. Fk. Moose Creek	A28329	0.4 km (0.25 mi) downstream
	3 Aug 75	0.8 km (0.5 mi) below N. Fk. Moose Creek	10 Aug 75	E. Fk.-N. Fk. Moose Creek confluence	A28076	0.8 km (0.5 mi) upstream
	19 Aug 75	Below Roll Creek in E. Fk. Moose Creek	6 Sept 75	2.4 km (1.5 mi) below Elbow's Bend (Moose Creek)	A28430	0.8 km (0.5 mi) upstream
	3 Aug 76	0.8 km (0.5 mi) below Goat Creek	12 Aug 76	Selway River at Shearer	A29394	4.0 km (2.5 mi) downstream
	3 Aug 76	Selway River at Shearer	6 Aug 76	Selway River at Shearer	A28528	None

Table 3. (Continued) Cutthroat tag recoveries from the Selway River and Moose Creek, 1975-1978.

Date tagged	Tagging location	Date recaptured	Recapture location	Tag number	Movement
3 Aug 76	0.8 km (0.5 mi) above Selway Lodge	10 Aug 76	Selway River at Shearer	A28594	0.8 km (0.5 mi) upstream
3 Aug 76	Below Goat Creek	3 Aug 77	0.8 km (0.5 mi) below North Star Creek	A29313	2.4 km (1.5 mi) upstream
4 Aug 76	0.8 km (0.5 mi) below Cow Cow Creek	28 May 78	0.8 km (0.5 mi) up Moose Creek	A28589	9.7 km (6 mi) downstream
6 Aug 76	Mouth of Moose Creek	1 Sept 77	Moose Creek Ranch	A29381	2.4 km (1.5 mi) upstream
12 Aug 76	2.8 km (1.75 mi) up Three Links Creek	5 Sept 76	Selway River below Race Creek	Z4980	22.5 km (14 mi) downstream

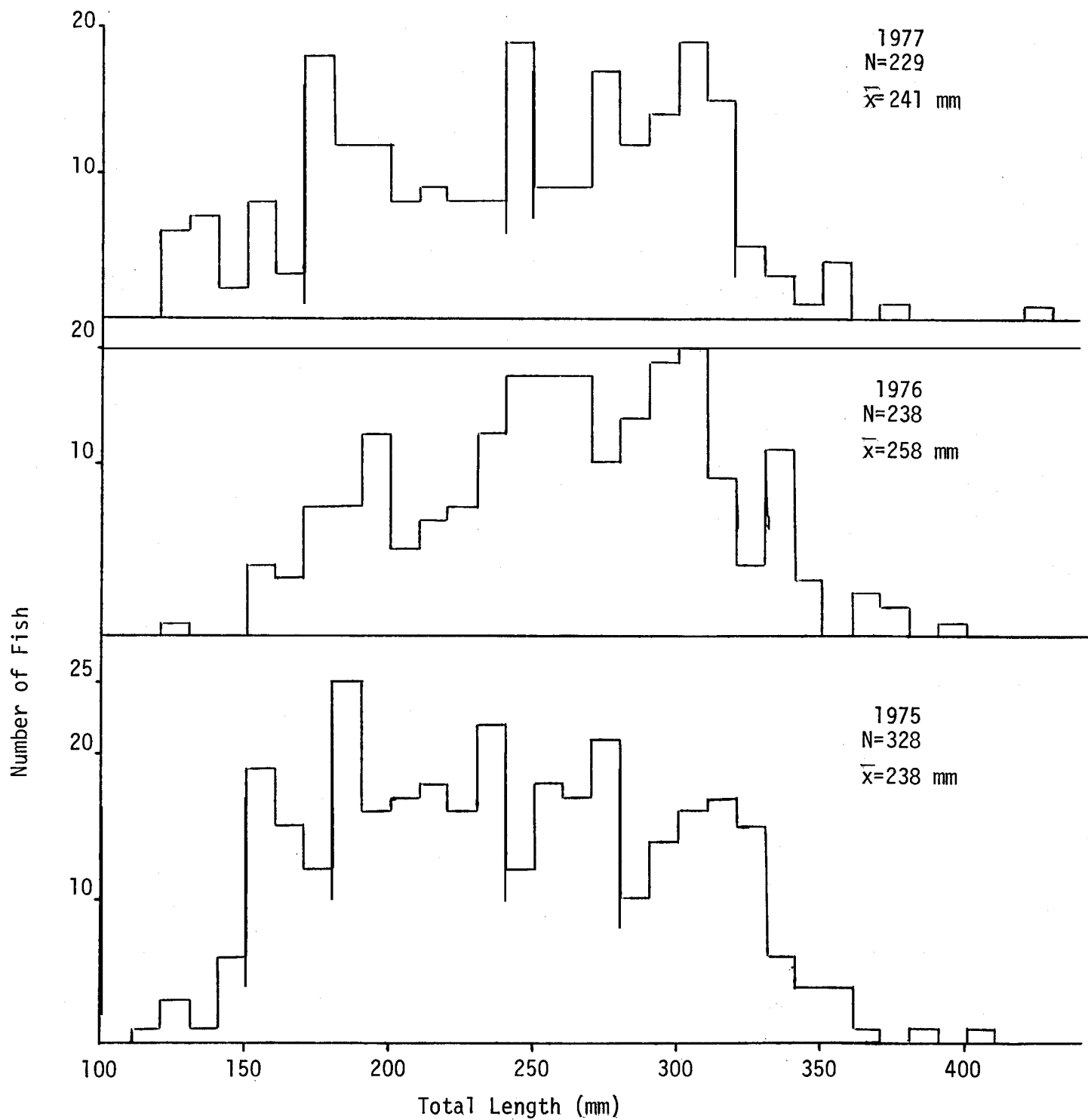


Figure 2. Length frequencies of cutthroat trout measured from the Selway River, 1975, 1976 and 1977.

Table 4. Percent and number of cutthroat trout by 25.4 mm (1 in) size range taken from the Selway River by angling, 1975, 1976 and 1977.

Length (mm)	1975		1976		1977	
	Number	Percent	Number	Percent	Number	Percent
102-126	4	1.8	0	0.0	6	2.6
127-151	16	6.9	5	2.2	14	6.1
152-177	31	13.3	10	4.2	23	10.0
178-202	42	18.0	29	12.2	25	10.9
203-228	29	12.4	18	7.6	24	10.5
229-253	34	14.6	41	17.2	32	14.0
254-278	31	13.3	37	15.5	28	12.2
279-304	18	7.7	48	20.2	34	14.8
305-329	20	8.6	27	11.3	33	14.4
330-355	6	2.6	17	7.1	6	2.6
356-380	1	0.4	5	2.1	3	1.3
381-405	1	0.4	1	0.4	0	0.0
over 406	<u>0</u>	<u>0.0</u>	<u>0</u>	<u>0.0</u>	<u>1</u>	<u>0.6</u>
Totals	233	100.0	238	100.0	229	100.0

From Jim's Creek to Race Creek cutthroat increased from none in 1973 to 7.5 per transect in 1977, The 1977 count was 3,2 times the previous 4-year average (Table 1). The percent of cutthroat over 305 mm (12 in) has increased from none in 1973 to 26,5% in 1977 (Table 2).

Combining those sections of the Selway River from Moose Creek to Race Creek, we found that the number of cutthroat per transect had increased from 3.6 in 1973 to 15.3 in 1977. The 1977 count .7 times the previous 4-year average (Table 1). The percent of cutthroat over 305 mm (12 in) has increased from 8.0 in 1974 to 18.1 in 1977 (Table 2).

Cutthroat Tagging

Because of the difficulty of obtaining tag returns from a catch-and-release fishery we did not tag any cutthroat in the Selway River during 1977. During 1975 and 1976, we tagged a total of 508 cutthroat in the Selway River and tributaries. To date, we have received 28 tag returns (5.5%). The most extensive downstream movement has been 22.5 km (14 mi), while the longest upstream movement was 26 km (16 mi), Time between tagging and recapture has ranged from 1 to 1,043 days (Table 3).

Cutthroat Length Frequency

We measured a total of 229 cutthroat from the Selway River between White Cap Creek and Race Creek in 1977 (Fig. 2), The cutthroat measured ranged from 120-422 mm (4.7 - 16.6 in) and averaged 241 mm (9.5 in). The mean total lengths of cutthroat measured in 1975 and 1976 was 238 mm (9.4 in) and 258 mm (10,2 in) respectively, The percent of cutthroat over 305 mm (12 in) was 19.2% in 1977 compared to 21.8% in 1976 and 12.0% in 1975. The percent of cutthroat less than 203 mm (8 in) was 29.3% in 1977 compared to 18.5% in 1976 and 39.9% in 1975.

Whitefish

Numbers of whitefish per transect increased by 1.4 to 3,8 times the previous 4-year average in each stream section of the Selway River in 1977 (Table 5). From Wilkerson Creek to Deep Creek we counted an average of 18.2 whitefish per transect in 1977 compared to 11.0 per transect in 1976. From Deep Creek to White Cap Creek the 26.0 whitefish per transect counted in 1977 was 2.2 times the previous 4-year average. From White Cap Creek to Moose Creek, the 44.9 whitefish per transect counted in 1977 was twice the previous 4-year average. From Moose Creek to Race Creek, the 50.4 whitefish per transect counted in 1977 was 2,2 times the previous 4-year average.

DISCUSSION

The most important factor to keep in mind when comparing 1977 snorkel counts of cutthroat in the Selway River with counts of previous years is the extremely low flows experienced during 1977 (Fig. 3), Cutthroat are more concentrated in the main river during low flow years, so 1977 counts may be slightly inflated because of unavailable tributary habitat. Even when allowing for this inflation, however, there seems to

be a significant increase in cutthroat numbers since 1973, Flows in 1973 were also quite low, yet 1977 counts were still from 2.2 to 6.7 times greater than in 1973 in the various stream sections, The percent of cutthroat over 305 mm (12 in) decreased slightly in most sections in 1977 but this was due to increased numbers of smaller cutthroat rather than an actual decrease in large cutthroat,

Table 5. Total numbers counted and average number of fish per transect for whitefish in the Selway River, 1973-1977.

Stream section	Total whitefish counted					Average number of whitefish per transect				
	1973	1974	1975	1976	1977	1973	1974	1975	1976	1977
Wilkerson Creek to Deep Creek	-	-	-	55	91	-	-	-	11.0	18.2
Deep Creek to White Cap Creek	14	28	31	27	78	14.0	9.3	10.3	13.5	26.0
White Cap Creek to Running Creek	176	218	42	89	164	35.2	31.1	8.4	17.8	32.8
Running Creek to Bear Creek	196	182	75	39	311	39.2	36.4	15.0	6.5	77.8
Bear Creek to Moose Creek	<u>187</u>	<u>205</u>	<u>59</u>	<u>36</u>	<u>154</u>	<u>31.1</u>	<u>34.2</u>	<u>11.8</u>	<u>9.0</u>	<u>51.3</u>
Subtotals weighted means	559	605	176	164	629	34.9	33.9	11.7	10.9	44.9
Moose Creek to Halfway Creek	195	126	162	83	278	48.8	31.5	32.4	16.6	69.5
Halfway Creek to Three Links Creek	124	157	81	32	65	17.7	31.4	27.0	16.0	65.0
Three Links Creek to Jim's Creek	143	76	82	39	149	23.8	19.0	41.0	19.5	49.7
Jim's Creek to Race Creek	<u>21</u>	<u>67</u>	<u>56</u>	<u>6</u>	<u>164</u>	<u>5.2</u>	<u>16.8</u>	<u>18.7</u>	<u>2.0</u>	<u>41.0</u>
Subtotals weighted means	483	426	381	160	656	23.0	25.1	29.3	13.3	50.4
Race Creek to mouth of Selway	115	86	130	91	100	28.8	21.5	32.5	22.8	25.0

Figure 3. Selway River hydrograph at Paradise launch site, 1973-1977 (USFS 1978).

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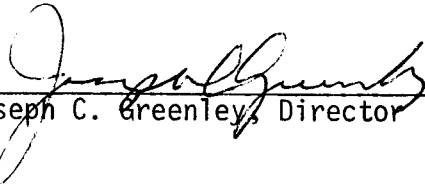
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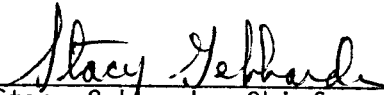
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APPENDIX

Table 1. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1977.

Date	Transect location	Species counted							WF
		RB 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT 305mm	CT 305mm	
9/2/77	Pool above Gold Pan Creek	3	10	3	0	0	11	0	23
	Pool above Lunch Creek	1	8			4	6	0	12
	Pool below Upper Crossing	1	5	2	0	0	10	0	21
	0.4 km (0.25 mi) above Three Lakes Creek	3	9	2		15	19	2	30
	wilkerson-Selway confluence	2	6	0	0	0		0	5
9/1/77	Swimming Hole 0.5 mile below Indian Creek	0	3	0	0	20		1	28
	0.5 km (0.3 mi) below Snake Creek	0	2	0	0	8	3	1	30
	0.3 km (0.2 mi) above White Cap Creek			0	0	0	2	0	20
8/2/77	0.8 km (0.5 mi) below white Cap Creek	0	4	0		0	2	0	45
	1.6 km (1.0 mi) below white Cap Creek		0	0	0	0	3	0	22
	"Sandy Beach" pool below Bad Luck Creek	0	0	0	0	0	19	4	31
	Pool below Galloping Gertie Rapids	0	0	0	0	0	5	3	25

Table 1. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1977 (continued).

Date	Transect location	Species counted							
		RB 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT 305mm	CT 305mm	WF
8/2/77 (cont'd)	Pool below Cougar Bluff Rapids	0	0	0	0	0	12	5	41
	Pool below Running Creek	0	0	0	0	0	23	8	50
8/3/77	Pool at Archer Camp			0	0	0	13		40
	Elevator Mountain Pool	0	2	0	0	0	8	3	21
	Pool below North Star	0	1	0	0	0	6		
	Selway Lodge Pool	2	7	0	0	300	23	4	200
8/5/77	Pool above Pettibone Creek		2	0	0		13	4	.42
	Pool below Pettibone Rapids	0	0	0	0	6	6	0	-
8/6/77	Rattlesnake Bar Pool	2	6	1	0	0	28	7	70
	Pool below Magpie Creek	0	4	0	0	10	8	4	42

Table 1. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1977 (continued).

Date	Transect location	Species counted							
		RB 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT 305mm	CT 305mm	WF
8/7/77	Pool at Moose Creek confluence	0	3	0	0	1	21	3	65
	Pool below Divide Creek	0	6	1	0	8	16	5	80
	Pool above Ladle Rapids		5	0	0	0	28	3	33
	Pool below Little Niagra Rapids	0	4	2	0	7	19	1	100
	Pool below Puzzle Creek	1	9	2		4	14	3	65
	Pool below Osprey Rapids	2	8	0	0	11	19	4	-
8/8/77	Pool below Three Links Rapids	3	25	3	0	11	9	3	70
	Pool below Dry Bar Creek	4	30		0	17	13	5	55
8/9/77	Pool below Cascade Creek	0	10	2	0	0	2	1	24
	Pool below Power Rapids	0	17	4	0	15	2	3	50

Table 1. Summary of upper Selway River (above Race Creek) snorkel transect counts for 1977 (continued)

Date	Transect location	Species counted							
		RB 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT 305mm	CT 305mm	WF
8/9/77 (cont'd)	Pool below Renshaw Creek	0	13	2	0	5	5	2	40
	Pool below Otter Creek	0	2	0	0	0	8	3	24
	Pool below Packer Creek	0	4	0	0	0	7	0	50

*We saw no adult chinook in 22 Selway River transects above Moose Creek in 1977.

Table 2. Summary of Selway River tributary transect counts for 1977.

Date	Transect location	Species counted							
		RB > 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT < 305mm	CT > 305mm	WF
8/4	Bear Creek Salmon Hole	0	4	0	150	150	14	4	-
	Rock Cliff Pool Bear Creek	0	5	0	0	0	7	1	80

*we counted 32 adult chinook in Bear Creek in 1977.

Table 3. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1976.

Date	Transect location	Species counted							
		RB > 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT <305mm	CT > 305mm	WF
8/19/76	Pool above Gold Pan Creek	2	2	0	0	0	5	2	15
	Pool above Lunch Creek	0	1	0	0	0	4	0	8
	Pool below Upper Crossing	1	3	0	0	0	5	0	10
	0.4 km (0.25 mi) above Three Lakes Creek	1	4	0	0	0		2	8
	wilkerson-Selway Confluence	3	5	0	0	0	2	0	14
8/12/76	Swimming Hole 0.8 km (0.5 mi) below Indian Creek	0	6	0	0	38	5	0	11
	0.5 km (0.3 mi) below Snake Creek								
8/11/76	0.8 km (0.5 mi) below white Cap Creek	0	1	0	0	0	1	0	4
	1.6 km (1.0 mi) below white Cap Creek	2	3	0	0	0	5	0	16
	"Sandy Beach" pool below Bad Luck Creek	0	2	0	0	4	5	2	43
	Pool below Galloping Gertie Rapids	0	7	0	0	0	11		18

Table 3. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1976 (continued).

Date	Transect location	Species counted							
		RB >200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT <305mm	CT > 305mm	WF
8/11/76 (contd)	Pool below Cougar Bluff Rapids	0	7	0	0	0	6	3	8
8/2/76	Pool below Running Creek	0	3	0	0	0	8	3	10
	Pool below North Star	0	4	0	0	0	5	0	8
8/3/76	Pool below Ping Pong Alley	0	0	0	0	0	7	0	5
	**Elevator Mountain pool	0	0	0	0	0	3	1	5
	**Pool below Goat Creek Rapids	0	6	0	0	0	3	0	6
	**Selway Lodge Pool	0	0	0	0	0	5	2	— 5
8/4/76	Pool above Pettibone Creek	0	19	2	0	0	4	2	11
	Pool below Pettibone Rapids	0	14	0	0	0	4	1	9
	Rattlesnake Bar Pool	0	6	0	0	0	6	3	8
	Pool below Ham Rapids	0	11	0	0	7	4	0	8

Table 3. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1976 (continued).

Date	Transect location	Species counted							WF
		RB >200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT < 305mm	CT >305mm	
8/5/76	Pool at Moose Creek confluence	0	5	0	0	0	10	3	22
25	Pool below Divide Creek	0	20	7	0	0	6	0	18
	Pool above Ladle Rapids	0	11	3	0	0	7	2	14
	Pool below Little Niagara Rapids	0	9	0	0	0	7	0	11
	Pool below Puzzle Creek	0	9	2	0	0	3	2	18
	Pool below Osprey Rapids	0	14	3	0	0	8	3	15
	Pool below Three Links Rapids	0	20	2	0	6	6	2	17
	Pool below Dry Bar Creek	0	15	2	0	4	7	2	27
	Pool below Cascade Creek	0	25	5	0	0	1	3	12
	Second pool below Power Rapids	6	9	0	0	0	2	1	5
	Pool below Bait Creek Rapids	0	4	0	0	0	13	1	1

Table 3. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1976 (continued).

Date	Transect location	Species counted							
		RB > 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT < 305mm	CT >305mm	WF
8/5/76 (contd)	Pool below Packer Creek	0	0	0	0	0	0	0	0

*We counted only 2 adult chinook in 22 Selway River transects above Moose Creek in 1976.

**Visibility was poor when these transects were snorkeled so counts are low.

Table 4. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1975.

Date	Transect location	Species counted							
		RB a 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT < 305mm>	CT >305mm	WF
7/27/75	Swimming Hole 0.8 km (0.5 mi) below Indian Creek	0	3	1	0	80	4	0	16
	0.5 km (0.3 mi) below Snake Creek	0	2	2	0	35	2	0	12
	0.3 km (0.2 mi) above white Cap Creek	0	8	2	0	30	4	0	3
7/28/75	0.8 km (0.5 mi) below white Cap Creek	0	3	0	0	0	2	0	0
	1.6 km (1.0 mi) below white Cap Creek	0	4	0	0	0	4	0	11
	"Sandy Beach" pool below Bad Luck Creek	2	3	1	0	0	5	1	8
	Pool below Galloping Gertie Rapids	2	7	2	0	0	14	1	13
	Pool below Cougar Bluff Rapids	1	5	0	0	0	5	2	10
7/28/75	Pool below Running Creek	2	6	2	0	8	8	2	14
	Pool below North Star Creek	0	4	0	0	0	3	0	10
	Elevator Mountain pool	0	3	0	0	6	4	2	14

Table 4. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1975 (continued).

Date	Transect location	Species counted							
		RB > 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT < 305mm	CT >305mm	WE
7/28/75 (contd)	Pool below Goat Creek Rapids	0	6	4	0	5	3	0	20
	Selway Lodge pool	1	8	2	0	8	9	2	17
7/30/75	Pool below Pettibone Creek	0	5	0	0	6	1	0	9
	Pool below Pettibone Rapids	0	6	1	0	0	2	0	11
	Rattlesnake Bar pool	0	8	2	0	3	9	2	14
	Pool below Ham Rapids	1	17	3	0	1	6	0	11
	Pool below Hell Creek	2	10	3	0	8	5	0	14
7/31/75	Pool at Moose Creek confluence	0	11	2	0	6	4	0	22
8/9/75	Pool below Divide Creek	0	7	0	0	0	5	0	75
	Pool above Ladle Rapids	0	13	4	0	0	6	0	21
7/31/75	Pool below Little Niagara Rapids	0	25	6	0	0	7	1	14

Table 4. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1975 (continued).

Date	Transect location	Species counted							
		RB > 200mm	SH Age II	SH Age I	Trout fry	Juvenile • chinook*	CT 305mm	? CT 305mm	WF
8/9/75	Pool below Little Niagara Rapids	0	25	6	0	0	7	1	14
	Pool below Osprey Rapids	0	20	7	0	4	4	0	40
8/1/75	Pool below Dry Bar Creek	2	33	10	0	8	8	2	50
8/10/75	0.4 km (0.25 mi) below Marten Creek	0	9	2	0	0	4	1	18
	Pool below Three Links Rapids	0	28	10	0	6	9	3	23
8/1/75	Pool below Cascade Rapids	0	18	4	0	0	6	0	32
	Second pool below Power Rapids	0	8	0	0	8	0	0	31
	Pool below Bait Creek Rapids	0	6	2	0	10	2	2	14
	Pool below Packer Creek	0	4	0	0	0	0	0	11

*we saw no adult chinook in 18 Selway River transects above Moose Creek during 1975.

Table 5. Summary of Selway River tributary transect counts for 1975.

Date	Transect location	Species counted							
		RB >200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook	CT < 305mm	CT >305mm	WF
7/29/75	Bear Creek Salmon Hole	0	14	4	35	100	11	3	80
8/19/75	East Fork Moose Creek Pool at Elbow Bend	0	15	4	0	35		0	23
	Deep pool by trail	3	25	9	0	150	5	2	150
	Pool below Maple Creek	1	20	7	0	40	4	1	21
	Pool at Moose Creek Ranch Bridge	0	4	0	0	0	0	0	12

Table 6. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1974.

Date	Transect location	Species counted							
		RB >200mm	SH Age II	SH Age I	Trout fry	Juvenile •chinook*	CT < 305mm	CT > 305mm	WF
7/17/74	Swimming Hole 0.8 km (0.5 mi) below Indian Creek	0	4	0	0	120	5	0	15
	0.5 km (0.3 mi) below Snake Creek	0	2	0	0	40	0	0	8
	0.3 km (0.2 mi) above white Cap Creek	0	8	0	0	25	4	0	5
8/6/74	0.8 km (0.5 mi) below white Cap Creek	0	1	0	0	1	0	0	15
	1.6 km (1.0 mi) below white Cap Creek	0	0	0	0	0	1	0	18
	"Sandy Beach" pool below Bad Luck Creek	0	0	0	0	0	5	0	43
	Pool below Slalom Slide Rapids	0	0	0	0	0	5	1	49
	Pool below Galloping Gertie Rapids	0	3	0	0	0	5	2	41
	Pool below Cougar Bluff Rapids	0	4	0	0	0	2	1	28
	Pool below Running Creek	0	5	0	0	0	12	2	60
8/7/74	Pool below North Star Creek	0	0	0	0	0	5	0	21
	Elevator Mountain Pool	0	0	0	0	0	3	0	28

Table 6. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1974 (continued).

Date	Transect location	Species counted							
		RB 200mm	SH Age II	SH Age I	Trout fry	Juvenile •chinook*	CT < 305mm	CT >305mm	WF
8/7/74 (contd)	Pool below Goat Creek Rapids	2	8	1	0	0	2	0	35
	Pool above Elk Creek	0	0	0	0	0	0	0	38
8/8/74	Pool above Pettibone Creek	0	6	0	0	0	11	3	38
	Pool below Pettibone Rapids	0	3	0	0	2	5	1	23
	Rattlesnake Bar pool	0	3	0	0	0	6	0	50
	Pool below Magpie Creek	0	1	0	0	0	3	0	21
	Pool above Hame Rapids	0	2	0	0	0	4	1	41
	Pool below Hell Creek	1	5	1	0	3	9	2	32
8/9/74	Pool at Moose Creek confluence	0	7	0	0	0	3	0	21
	Pool below Divide Creek	2	18	3	0	3	17	0	45
	Pool below Double Drop Rapids	0	20	7	0	0	13	0	33
	Pool above Ladle Rapids	0	11	3	0	3	3	0	27

Table 6. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1974 (continued).

Date	Transect location	Species counted							WF
		RB > 200mm	SH Age II	SH Age I	Trout fry	Juvenile •chinook*	CT < 305mm	CT >305mm	
8/9/74 (contd)	Pool below Halfway Creek	1	14	2	0	11	4	2	34
	Pool below Long Pine Creek	0	8	3	0	5	3	1	28
	Pool below Osprey Rapids	3	22	6	0	11	11	3	45
	Third pool below Meeker Creek	0	17	4	0	7	10	0	32
	Pool above Three Links Creek	0	7	0	0	0	3	0	18
	Second pool below Dry Bar	1	14	2	0	0	5	0	31
	Pool below Coyote Creek	0	8	3	0	3	2	0	26
	Pool below Wolf Creek Rapids	0	4		0	6	3	0	11
	Pool below Ballinger Creek	0	3	0	0	0	6	1	8
8/10/74	Pool below Power Rapids	1	4	0	0	0	2	1	21
	Pool below Bait Creek Rapids	0	7	0	0	0	3	0	21

Table 6. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1974 (continued).

Date	Transect location	Species counted							
		RB 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT 4=305mm	CT > 305mm	WF
8/10/74 (contd)	Pool below Otter Creek	0	5	0	0	0	3	0	14
	Pool below Packer Creek	1	6	1	0	0	1	0	11

*We counted only 3 adult chinook in the 19 Selway River transects above Moose Creek during 1974.

Table 7. Summary of Selway River tributary transect counts for 1974.

Date	Transect location	Species counted								
		RB > 20umm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT 2-305mm	CT >305mm	WF	
8/7/74	Bear Creek Salmon Hole	4	18	5	0	200	8	0	250	
8/29/74	East Fork Moose Creek									
	1.6 km (1.0 mi) above Cedar Creek		17	6	14	83	0	0	0	
	Just below Cedar Creek		14	4	21	50			0	
	1.2 km (0.75 mi) below Cedar Creek	0	25	10	27	94			0	
	0.8 km (0.5 mi) below Dolph Creek	0	15	5	29	48				
	Just below Dolph Creek	0	11	3	33	61	6	0	0	

*we counted only 4 adult chinook in Bear Creek in 1974.

Table 8. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1973.

Date	Transect location	Species counted							
		RB >200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT ' 35mm	CT > 305mm	WF
8/13/73	Swimming Hole 0.8 km (0.5 mi) below Indian Creek	0	12	3	0	125	1	0	14
8/14/73	Riffle-Pool series at Bad Luck Creek	0	0	0	0	0	7	1	52
	"Sandy Beach" pool below Bad Luck Creek	0	1	0	0	0	6	0	50
	Pool below Slalom Slide Rapids	0	1	0	0	0	1	1	30
	Pool below Galloping Gertie Rapids	0	1	0	0	3	2	0	22
	Pool below Cougar Bluff Rapids	7	3	0	0	0	3	0	22
	Pool below Running Creek	0	2	0	0	0	14	0	68
8/15/73	Pool below North Star Creek	0	0	0	0	0	3	0	24
	Pool below Ping Pong Alley	0	1	0	0	0	4	1	44
	Elevator Mountain Pool	0	0	0	0	-	10	3	35
	Pool below Goat Creek Rapids	1	5	-	-	-	1	0	25
8/17/73	Pool above Pettibone Creek	0	13	5	0	0	3	3	46

Table 8. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1973 (continued).

Date	Transect location	Species counted							
		RB a 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT 305mm	CT > 305mm	WF
8/17/73 (contd)	Pool below Pettibone Rapids	0	0	0	0	0	1	1	51
	Rattlesnake Bar Pool	0	0	0	0	0	6	1	40
8/18/73	Pool above Magpie Creek	0	2	0	0	1	9	5	51
	Pool below Magpie Creek	0	5	1	0	0	0	1	30
	Pool at Moose Creek confluence	1	4	0	0	7	6	0	45
7/24/73	First deep pool below Moose Creek	6	17	4	0	40	3	0	20
	Pool below Divide Creek	0	21	9	0	55	7	0	50
	Pool below Double Drop Rapids	4	24	6	0	35	8	2	65
	Pool above Ladle Rapids	8	23	6	0	2	4	0	60
7/25/73	Pool below Little Niagara Rapids	7	10	4	0	1	2	0	28
	Pool below Puzzle Creek	4	6	0	0	0	1	1	12

Table 8. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1973 (continued).

Date	Transect location	Species counted							
		RB >200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT . 305mm	CT >305mm	WF
7/25/73 (contd)	Pool below Osprey Rapids	10	18	3	0	12	7	1	12
	Pool below Three Links Rapids	8	15	4	0	0	2	2	12
	Second Pool below Three Links Creek	3	10	6	0	7	3	0	16
	Third Pool below Three Links Creek	4	10	4	0	19	1	0	29
7/26/73	Run at Dry Bar Camp	2	8	0	0	2	1	0	15
	Pool below Dry Bar Creek	14	40	9	0	7	8	2	41
	Second pool below Dry Bar Creek	0	9	0	0	0	0	0	6
	Pool below Coyote Creek	4	18	5	0	13	3	3	50
	Pool below wolf Creek Rapids	4	14	2	0	0	3	0	23
	Pool below Ballinger Creek	2	8	1	0	0	5	2	10
	Third pool below Ballinger Creek	2	9	1	0	14	4	0	13

Table 8. Summary of Upper Selway River (above Race Creek) snorkel transect counts for 1973 (continued).

			Species counted							
			RB	SH	SH	Trout	Juvenile	CT	CT	
Date	Transect	location	-200mm	Age II	Age I	fry	chinook*	< 305mm	>305mm	WF
7/27/73	Third pool									
	below Power	Rapids	2	5	0	0	0	0	0	7
	Pool at Renshaw									
	Creek		1	0	0	0	2	0	0	4
	Pool below									
	Otter Creek		1	2	0	0	0	0	0	6
	Pool below									
	Packer Creek		2	0	0	0	0	0	0	4

*We counted 22 adult chinook in the 16 Selway River transects above Moose Creek during 1973.

Table 9. Summary of Selway River tributary transect counts for 1973.

Date	Transect location	Species counted							
		RB > 200mm	SH Age II	SH Age I	Trout fry	Juvenile chinook*	CT < 305mm	CT > 305mm	WF
8/13/73	White Cap Creek Second Pool above mouth	1	8	2	0	49	1	0	1
	Running Creek Pool below Bridge	0	2	0	0	18	2	0	0
	Bear Creek Rock Cliff Pool	6	20	4	0	58	1	1	37
	Bear Creek Salmon Hole		10	6	0	250	5	0	400
	Moose Creek Bridge to Mouth	1	10	4	0	1	1	0	43
*We counted 25 adult chinook in the Bear Creek transects in 1973.									